AD-50 U,C,E

GRAPHIC EQUALIZER BOOSTER

SERVICE MANUAL

SPECIFICATIONS

Power source	DC 13.8 V (11 ~ 16 V allowable)
Grounding system	Negative type
Max. current consumption	6 A
Dimensions (W x H x D)	150 x 65 x 180 mm (5-7/8 x 2-1/2 x 7-1/8 in.)
Weight	1.6 kg (3.5 lbs.)
Power output (max.)	25 W + 25 W
(continuous at 1 kHz, 1% distortion)	15 W + 15 W
Graphic range	
Equalization range	± 12 dB
Equalization frequency	60 Hz, 250 Hz, 1 kHz, 3.5 kHz, 10 kHz
Frequency response	30 ~ 30,000 Hz (–3 dB)
Signal-to-noise ratio	More than 65 dB
Input level	2 V / 150 Ω
Load impedance	4 Ω (4 ~ 8 Ω allowable)

Note:
Specifications and the design subject to possible modification without notice due to improvements.

PIONEER®

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1. PARTS LOCATION AD-50

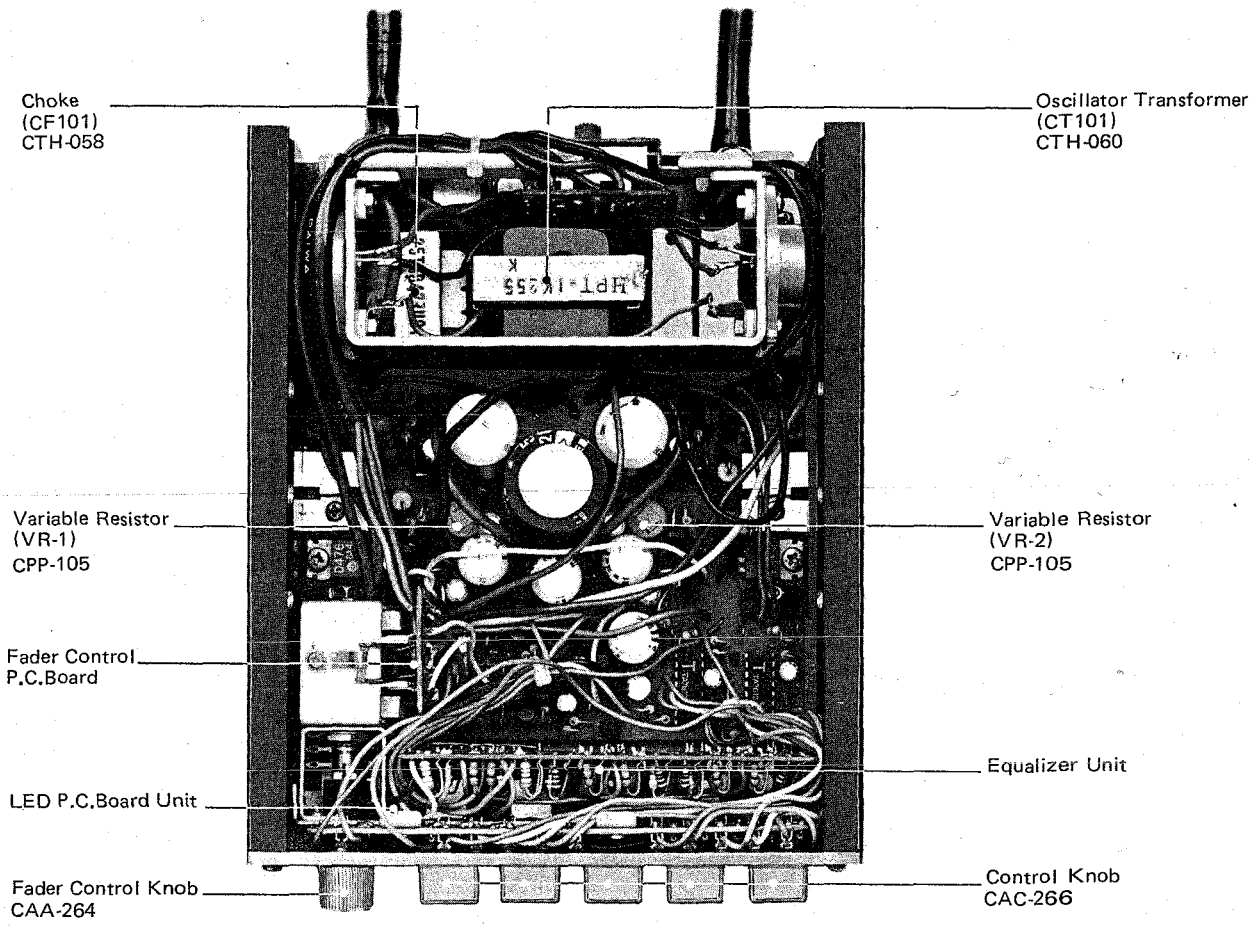


Figure 1

2. DISASSEMBLY

- **To remove TOP COVER (See figure 2.)**

1. Remove four "A" screws from the rear side.
2. Slide off the top cover in the direction of the arrow.

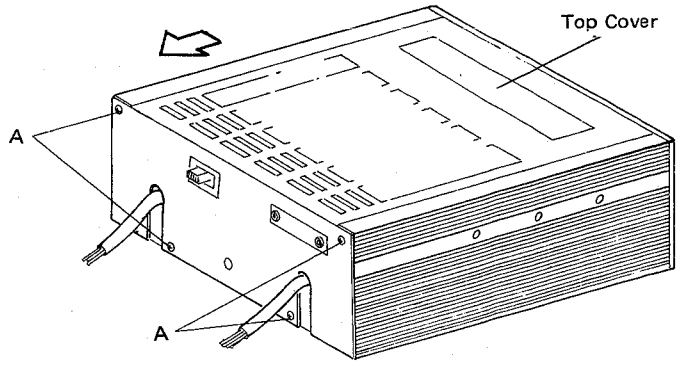


Figure 2

- **To remove BEZEL FRONT (See figure 3.)**

1. Remove four "B" screws and pull off the control knobs.
2. Now, the bezel front will be detached by moving it toward you.

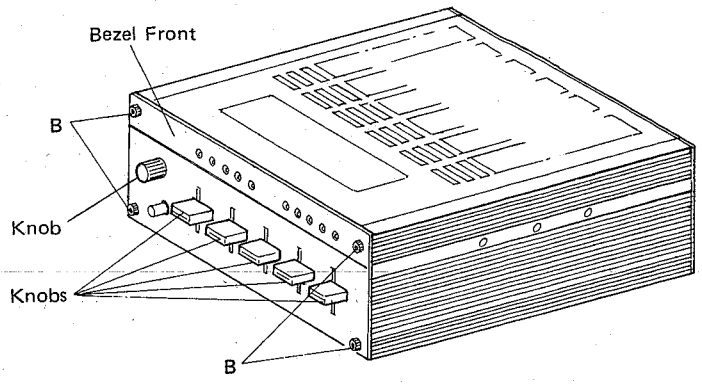


Figure 3

- **To remove BOTTOM COVER (See figure 4.)**

1. Remove the top cover.
2. Remove two "C" screws from the bottom cover.
3. Remove cord clampers located at the rear part of the bottom cover by removing the securing screws.
4. Slide off the bottom cover in the direction of the arrow.

- **To remove LED P.C.Board and FRONT BRACKET (See figure 4.)**

1. Remove two "D" screws.
2. Disconnect all wires from the P.C.Board.
3. LED P.C.Board will be then completely removed.
4. Remove ten "E" screws securing the slide controls and two "F" scress.
5. Then, detach the bracket.

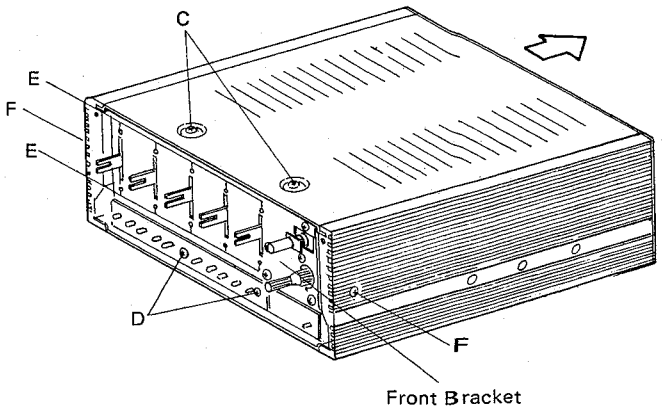


Figure 4

3. ADJUSTMENT AD-50

• Connection Diagram

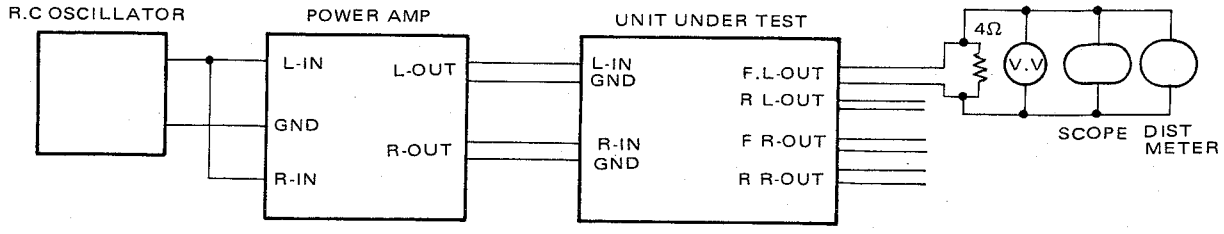


Figure 5

• Control Settings

Fader Control . . . . . Extreme front or rear position
—Do not test front and rear outputs simultaneously.

Equalizer Controls . . . . . Center position (Flat)

• Precedure

Figure 6 shows the typical characteristic curve.

1. Connect instruments as shown in figure 5.
2. Set the fader and equalizer controls as described above.
3. Adjust the test oscillator output for 0.02 volt inputs to the unit under testing.
4. Gradually increase the oscillator output until non-clipping maximum output is obtained watching the oscilloscope and read V.T.V.M. to measure the output level. The value must be no less than 7.5 volts.
5. If the output is less than this level, adjust VR1 for the right channel, or VR2 for the left channel.

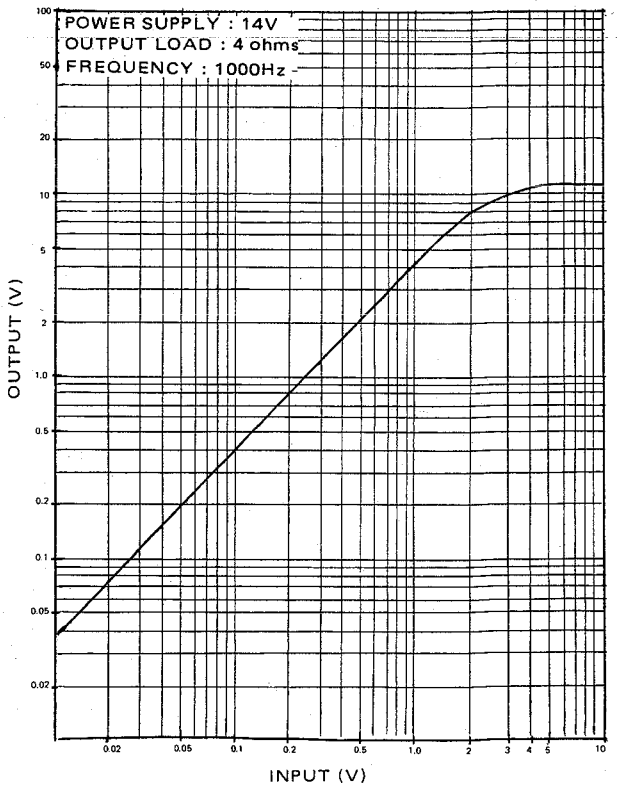


Figure 6

4. BLOCK DIAGRAM

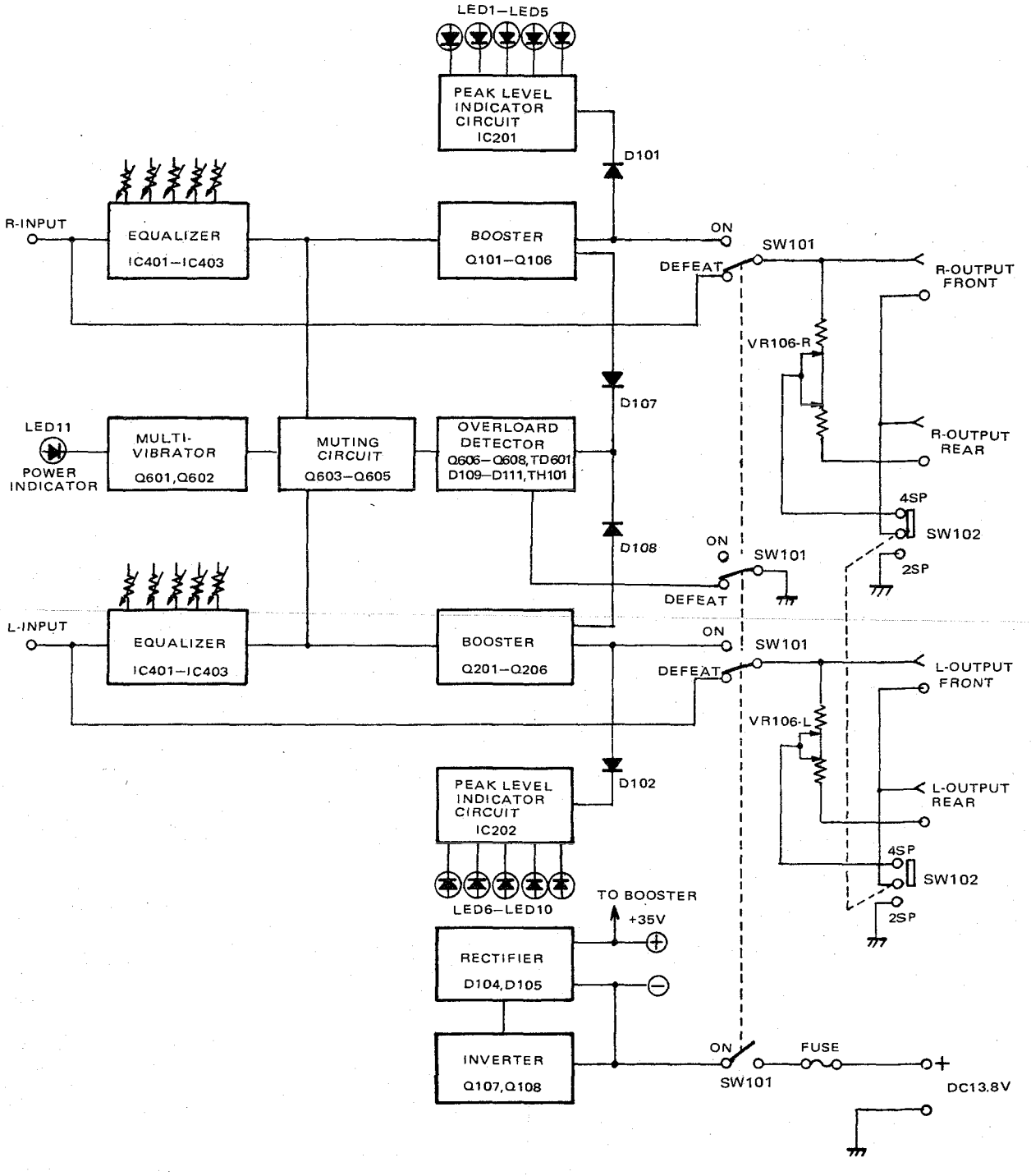


Figure 7

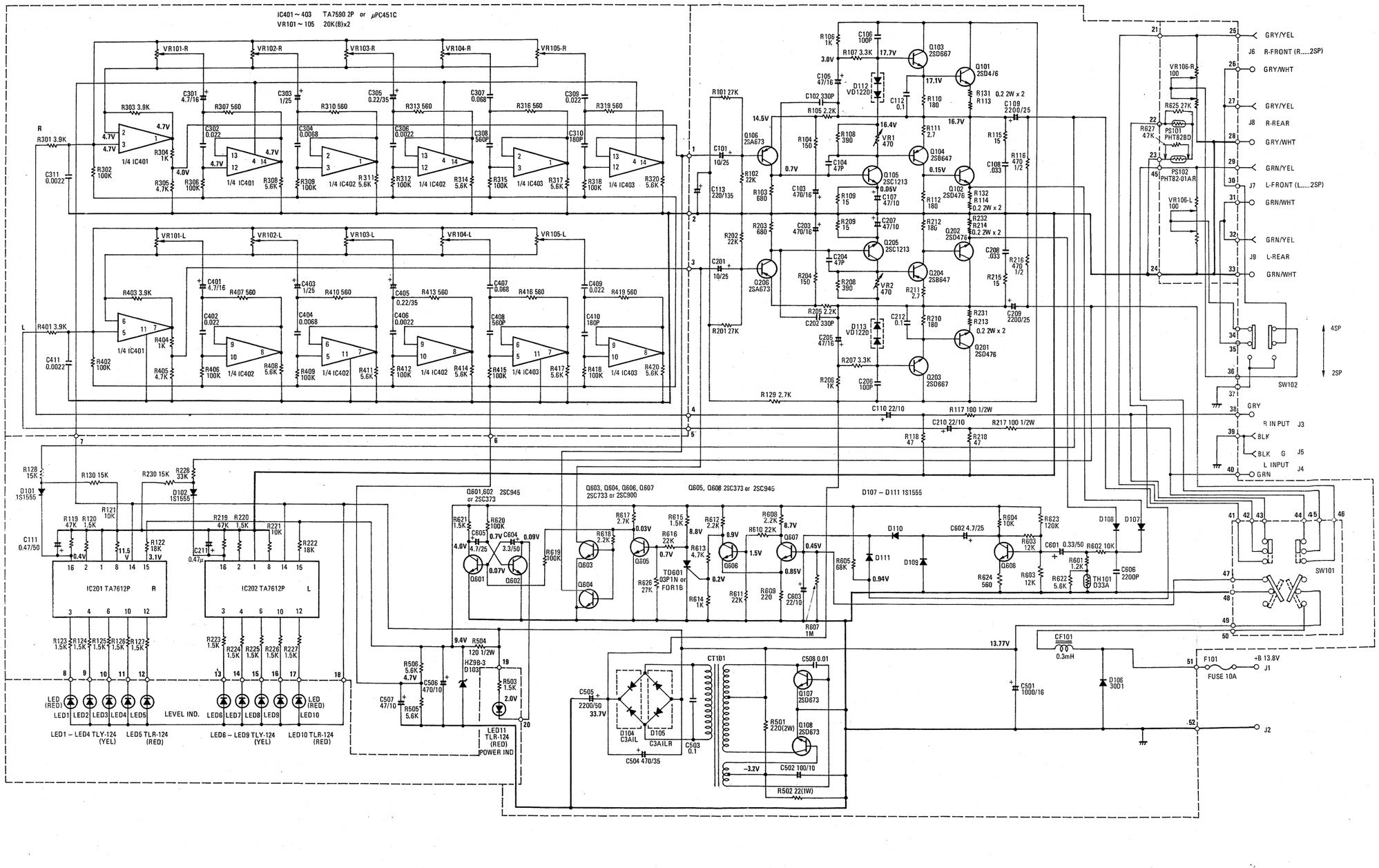

IC401 ~ 403 TA7590 2P or μPC451C
VR101 ~ 105 20K(B)x2
VR101-R
VR102-R
VR103-R
VR104-R
VR105-R
VR101-L
VR102-L
VR103-L
VR104-L
IC201 TA7612P R
IC202 TA7612P L
LED (RED) LED1 LED2 LED3 LED4 LED5 LEVEL IND. LED6 LED7 LED8 LED9 LED10 LED (RED)
LED1 – LED4 TLY-124 (YEL)
LED5 TLR-124 (RED)
LED6 – LED9 TLY-124 (YEL)
LED10 TLR-124 (RED)
LED11 TLR-124 (RED) POWER IND
Q601,602 2SC945 or 2SC373
Q603, Q604, Q606, Q607 2SC733 or 2SC900
Q605, Q608 2SC373 or 2SC945
D107 – D111 1S1555
Q103 2SD667
Q101 2SD476
Q104 2SB647
Q105 2SC1213
Q102 2SD476
Q202 2SD476
Q205 2SC1213
Q204 2SB647
Q201 2SD476
Q203 2SD667
Q206 2SA673
Q106 2SA673
VR1 470
VR2 470
VD1220
PS101 PHT82BD
PS102 PHT82-01AR
TD601 03P1N or FOR1B
TH101 D33A
CT1D1
Q107 2SD673
Q108 2SD673
D104 C3AIL
D105 C3AILR
D103 HZ9B-3
SW102
SW101
CF101 0.3mH
F101 FUSE 10A
GRY/YEL J6 R-FRONT (R.....2SP)
GRY/WHT
GRY/YEL J8 R-REAR
GRY/WHT
GRN/YEL J7 L-FRONT (L.....2SP)
GRN/WHT
GRN/YEL J9 L-REAR
GRN/WHT
4SP
2SP
GRY
R IN PUT J3
BLK
BLK G J5
L INPUT J4
GRN
+B 13.8V J1
J2

Figure 8

6. EQUALIZER UNIT AD-50

- **Parts Connection**

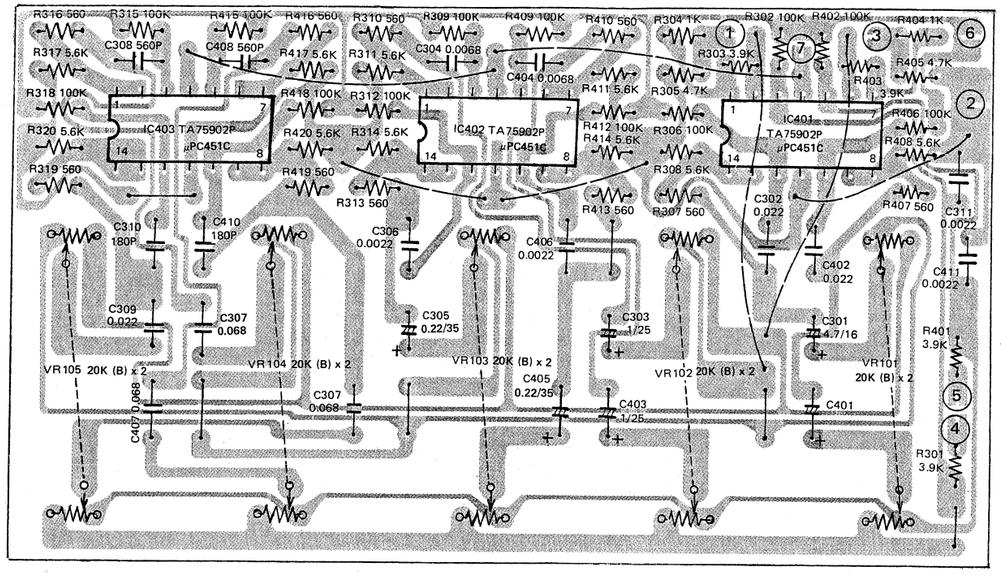


Figure 9

- **Parts List**

NOTICE: Of the descriptive symbols of the resistor and capacitor, the encircled alphabetic letter denotes the allowable error.

Example: RD1/4VS100 Ⓙ
CEA100 Ⓟ 25

C: ±0.25pF F: ±1pF J: ±5% M: ±20% Z: $^{+80}_{-20}$ %
D: ±0.5pF G: ±2% K: ±10% X: $^{+40}_{-20}$ % P: $^{+100}_{-10}$ %

MISCELLANEOUS

Ref. Key	Parts No.	Description		Notes
IC401	TA75902P	IC		interchangeable with μPC451C
IC402	TA75902P	IC		— ditto —
IC403	TA75902P	IC		— ditto —
VR101	CCW-005	Slide Volume	20kΩ(B)x2	
VR102	CCW-005	Slide Volume	20kΩ(B)x2	
VR103	CCW-005	Slide Volume	20kΩ(B)x2	
VR104	CCW-005	Slide Volume	20kΩ(B)x2	
VR105	CCW-005	Slide Volume	20kΩ(B)x2	

RESISTORS

Ref. Key	Parts No.	Description		
R301	RD1/4VS392J	Resistor	3.9kΩ	1/4W
R302	RD1/4VS104J	Resistor	100kΩ	1/4W
R303	RD1/4VS392J	Resistor	3.9kΩ	1/4W
R304	RD1/4VS102J	Resistor	1kΩ	1/4W
R305	RD1/4VS472J	Resistor	4.7kΩ	1/4W
R306	RD1/4VS104J	Resistor	100kΩ	1/4W
R307	RD1/4VS561J	Resistor	560Ω	1/4W
R308	RD1/4VS562J	Resistor	5.6kΩ	1/4W
R309	RD1/4VS104J	Resistor	100kΩ	1/4W
R310	RD1/4VS561J	Resistor	560Ω	1/4W
R311	RD1/4VS562J	Resistor	5.6kΩ	1/4W
R312	RD1/4VS104J	Resistor	100kΩ	1/4W
R313	RD1/4VS561J	Resistor	560Ω	1/4W
R314	RD1/4VS562J	Resistor	5.6kΩ	1/4W
R315	RD1/4VS104J	Resistor	100kΩ	1/4W
R316	RD1/4VS561J	Resistor	560Ω	1/4W
R317	RD1/4VS562J	Resistor	5.6kΩ	1/4W
R318	RD1/4VS104J	Resistor	100kΩ	1/4W
R319	RD1/4VS561J	Resistor	560Ω	1/4W
R320	RD1/4VS562J	Resistor	5.6kΩ	1/4W

Ref. Key	Parts No.	Description		
R401	RD1/4VS392J	Resistor	3.9kΩ	1/4W
R402	RD1/4VS104J	Resistor	100kΩ	1/4W
R403	RD1/4VS392J	Resistor	3.9kΩ	1/4W
R404	RD1/4VS102J	Resistor	1kΩ	1/4W
R405	RD1/4VS472J	Resistor	4.7kΩ	1/4W
R406	RD1/4VS104J	Resistor	100kΩ	1/4W
R407	RD1/4VS561J	Resistor	560Ω	1/4W
R408	RD1/4VS562J	Resistor	5.6kΩ	1/4W
R409	RD1/4VS104J	Resistor	100kΩ	1/4W
R410	RD1/4VS561J	Resistor	560Ω	1/4W
R411	RD1/4VS562J	Resistor	5.6kΩ	1/4W
R412	RD1/4VS104J	Resistor	100kΩ	1/4W
R413	RD1/4VS561J	Resistor	560Ω	1/4W
R414	RD1/4VS562J	Resistor	5.6kΩ	1/4W
R415	RD1/4VS104J	Resistor	100kΩ	1/4W
R416	RD1/4VS561J	Resistor	560Ω	1/4W
R417	RD1/4VS562J	Resistor	5.6kΩ	1/4W
R418	RD1/4VS104J	Resistor	100kΩ	1/4W
R419	RD1/4VS561J	Resistor	560Ω	1/4W
R420	RD1/4VS562J	Resistor	5.6kΩ	1/4W

CAPACITORS

Ref. Key	Parts No.	Description		
C301	CSZA4R7M16	Capacitor	4.7μF	16V
C302	CQMA223K50	Capacitor	0.022μF	50V
C303	CSZA010M25	Capacitor	1μF	25V
C304	CQMA682K50	Capacitor	0.0068μF	50V
C305	CSZAR22M35	Capacitor	0.22μF	35V
C306	CQMA222K50	Capacitor	0.0022μF	50V
C307	CQMA683K50	Capacitor	0.068μF	50V
C308	CKDYB561K50	Capacitor	560pF	50V
C309	CQMA223K50	Capacitor	0.022μF	50V
C310	CKDYB181K50	Capacitor	180pF	50V
C311	CQMA222K50	Capacitor	0.0022μF	50V

Ref. Key	Parts No.	Description		
C401	CSZA4R7M16	Capacitor	4.7μF	16V
C402	CQMA223K50	Capacitor	0.022μF	50V
C403	CSZA010M25	Capacitor	1μF	25V
C404	CQMA682K50	Capacitor	0.0068μF	50V
C405	CSZAR22M35	Capacitor	0.22μF	35V
C406	CQMA222K50	Capacitor	0.0022μF	50V
C407	CQMA683K50	Capacitor	0.068μF	50V
C408	CKDYB561K50	Capacitor	560pF	50V
C409	CQMA223K50	Capacitor	0.022μF	50V
C410	CKDYB181K50	Capacitor	180pF	50V
C411	CQMA222K50	Capacitor	0.0022μF	50V

7. BOOSTER P.C. BOARD UNIT (CXB-893) AD-50

- **Parts Connection**

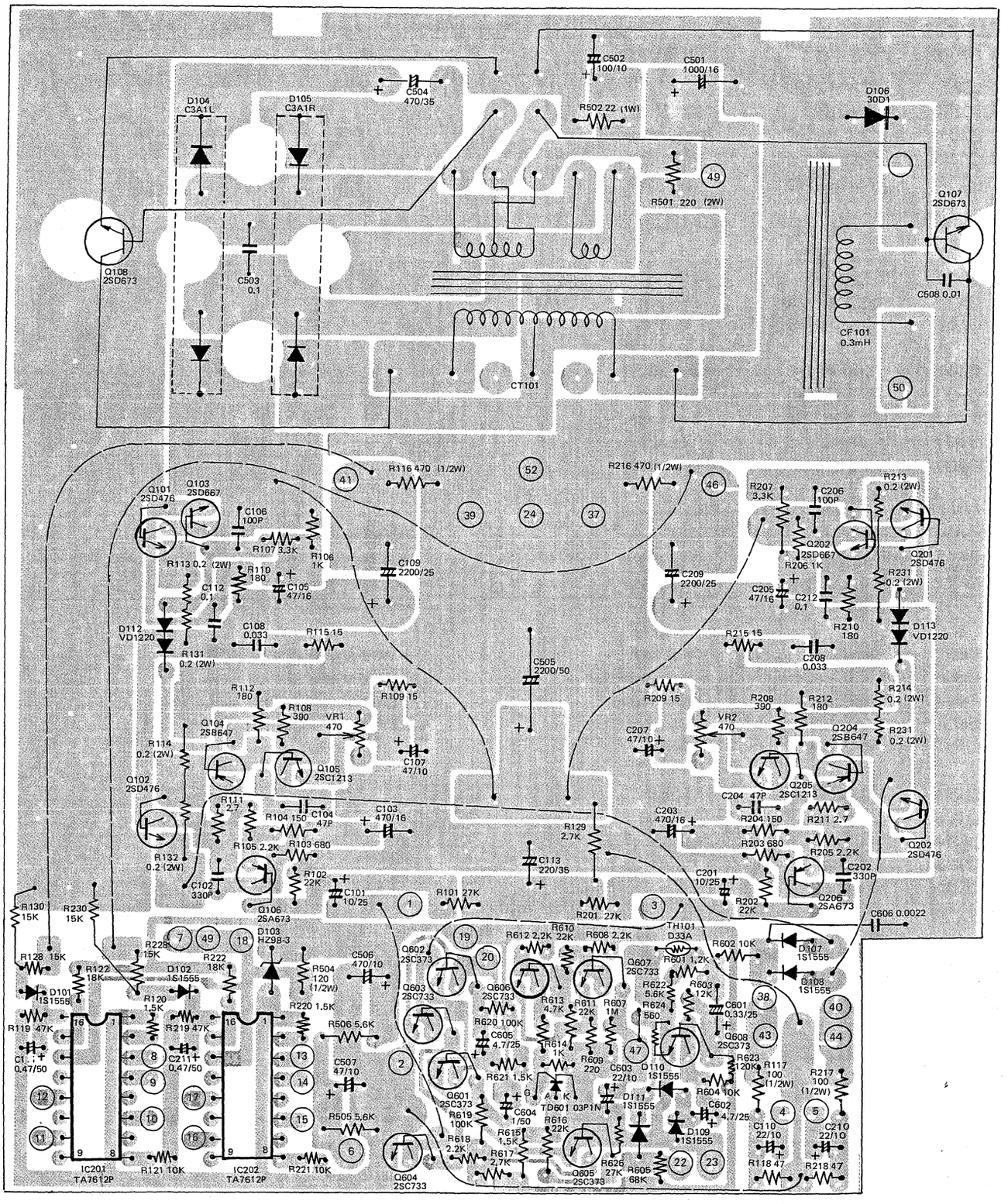


Figure 10

BOOSTER P.C.BOARD UNIT (CXB-893)

- **Parts List**

MISCELLANEOUS

Ref. Key	Parts No.	Description	Notes
IC201	TA7612P	IC	
IC202	TA7612P	IC	
Q101	2SD476-C	Transistor	
Q102	2SD476-C	Transistor	
Q103	2SD667-C	Transistor	
Q104	2SB647-C	Transistor	
Q105	2SC1213	Transistor	
Q106	2SA673-C	Transistor	
Q107	2SD673-AC	Transistor	
Q108	2SD673-AC	Transistor	
Q201	2SD476-C	Transistor	
Q202	2SD476-C	Transistor	
Q203	2SD677-C	Transistor	
Q204	2SB647-C	Transistor	
Q205	2SC1213	Transistor	
Q206	2SA673-C	Transistor	
Q601	2SC373	Transistor	interchangeable with 2SC945
Q602	2SC373	Transistor	interchangeable with 2SC945
Q603	2SC733-BL	Transistor	interchangeable with 2SC900-E
Q604	2SC733-BL	Transistor	interchangeable with 2SC900-E
Q605	2SC373	Transistor	interchangeable with 2SC945
Q606	2SC733-BL	Transistor	interchangeable with 2SC900-E
Q607	2SC733-BL	Transistor	interchangeable with 2SC900-E
Q608	2SC373	Transistor	interchangeable with 2SC945
D101	1S1555	Diode	
D102	1S1555	Diode	
D103	HZ9B-3	Diode	
D104	C3A1L	Diode	
D105	C3A1LR	Diode	
D106	30D1	Diode	
D107	1S1555	Diode	
D108	1S1555	Diode	
D109	1S1555	Diode	
D110	1S1555	Diode	
D111	1S1555	Diode	
D112	VD1220	Diode	
D113	VD1220	Diode	
TD601	O3P1N	S.C.R.	interchangeable with FOR1B
TH101	D33A	Thermistor	
VR1	CPP-105	Variable Resistor 470Ω	
VR2	CPP-105	Variable Resistor 470Ω	
CT101	CTH-060	Converter	
CF101	CTH-058	Choke Filter (0.3mH)	

RESISTORS

Ref. Key	Parts No.	Description		
R101	RD1/4VS273J	Resistor	27kΩ	1/4W
R102	RD1/4VS223J	Resistor	22kΩ	1/4W
R103	RD1/4VS681J	Resistor	680Ω	1/4W
R104	RD1/4VS151J	Resistor	150Ω	1/4W
R105	RD1/4VS222J	Resistor	2.2kΩ	1/4W
R106	RD1/4VS102J	Resistor	1kΩ	1/4W
R107	RD1/4VS332J	Resistor	3.3kΩ	1/4W
R108	RD1/4VS391J	Resistor	390Ω	1/4W
R109	RD1/4VS150J	Resistor	15Ω	1/4W
R110	RD1/4VS181J	Resistor	180Ω	1/4W
R111	RD1/4VS2R7J	Resistor	2.7Ω	1/4W
R112	RD1/4VS181J	Resistor	180Ω	1/4W
R113	RS2P0R2K	Resistor	0.2Ω	2W
R114	RS2P0R2K	Resistor	0.2Ω	2W
R115	RD1/4VS150J	Resistor	15Ω	1/4W
R116	RD1/2VS471J	Resistor	470Ω	1/2W
R117	RD1/2VS101J	Resistor	100Ω	1/2W
R118	RD1/4VS470J	Resistor	47Ω	1/4W
R119	RD1/4VS473J	Resistor	47kΩ	1/4W
R120	RD1/4VS152J	Resistor	1.5kΩ	1/4W
R121	RD1/4VS103J	Resistor	10kΩ	1/4W
R122	RD1/4VS183J	Resistor	18kΩ	1/4W
R128	RD1/4VS153J	Resistor	15kΩ	1/4W
R129	RD1/4VS272J	Resistor	2.7kΩ	1/4W
R130	RD1/8PS153J	Resistor	15kΩ	1/8W
R131	RS2P0R2K	Resistor	0.2Ω	2W
R132	RS2P0R2K	Resistor	0.2Ω	2W
R201	RD1/4VS273J	Resistor	27kΩ	1/4W
R202	RD1/4VS223J	Resistor	22kΩ	1/4W
R203	RD1/4VS681J	Resistor	680Ω	1/4W
R204	RD1/4VS151J	Resistor	150Ω	1/4W
R205	RD1/4VS222J	Resistor	2.2kΩ	1/4W
R206	RD1/4VS102J	Resistor	1kΩ	1/4W
R207	RD1/4VS332J	Resistor	3.3kΩ	1/4W
R208	RD1/4VS391J	Resistor	390Ω	1/4W
R209	RD1/4VS150J	Resistor	15Ω	1/4W
R210	RD1/4VS181J	Resistor	180Ω	1/4W
R211	RD1/4VS2R7J	Resistor	2.7Ω	1/4W
R212	RD1/4VS181J	Resistor	180Ω	1/4W
R213	RS2P0R2K	Resistor	0.2Ω	2W
R214	RS2P0R2K	Resistor	0.2Ω	2W
R215	RD1/4VS150J	Resistor	15Ω	1/4W
R216	RD1/2VS471J	Resistor	470Ω	1/2W
R217	RD1/2VS101J	Resistor	100Ω	1/2W
R218	RD1/4VS470J	Resistor	47Ω	1/4W
R219	RD1/4VS473J	Resistor	47kΩ	1/4W
R220	RD1/4VS152J	Resistor	1.5kΩ	1/4W
R221	RD1/4VS103J	Resistor	10kΩ	1/4W
R222	RD1/4VS183J	Resistor	18kΩ	1/4W
R228	RD1/4VS153J	Resistor	15kΩ	1/4W
R231	RS2P0R2K	Resistor	0.2Ω	2W
R232	RS2P0R2K	Resistor	0.2Ω	2W
R230	RD1/8PS153J	Resistor	15kΩ	1/8W
R501	RS2P221J	Resistor	220Ω	2W
R502	RS1P220J	Resistor	22Ω	1W
R504	RD1/2VS121J	Resistor	120Ω	1/2W
R505	RD1/4VS562J	Resistor	5.6kΩ	1/4W
R506	RD1/4VS562J	Resistor	5.6kΩ	1/4W
R601	RD1/4VS122J	Resistor	1.2kΩ	1/4W
R602	RD1/4VS103J	Resistor	10kΩ	1/4W
R603	RD1/4VS123J	Resistor	12kΩ	1/4W
R604	RD1/4VS103J	Resistor	10kΩ	1/4W
R605	RD1/4VS683J	Resistor	68kΩ	1/4W
R607	RD1/4VS105J	Resistor	1MΩ	1/4W
R608	RD1/4VS222J	Resistor	2.2kΩ	1/4W
R609	RD1/4VS221J	Resistor	220Ω	1/4W
R610	RD1/4VS223J	Resistor	22kΩ	1/4W
R611	RD1/4VS223J	Resistor	22kΩ	1/4W
R612	RD1/4VS222J	Resistor	2.2kΩ	1/4W
R613	RD1/4VS472J	Resistor	4.7kΩ	1/4W
R614	RD1/4VS102J	Resistor	1kΩ	1/4W
R615	RD1/4VS152J	Resistor	1.5kΩ	1/4W
R616	RD1/4VS223J	Resistor	22kΩ	1/4W
R617	RD1/4VS272J	Resistor	2.7kΩ	1/4W
R618	RD1/4VS222J	Resistor	2.2kΩ	1/4W
R619	RD1/4VS104J	Resistor	100kΩ	1/4W
R620	RD1/4VS104J	Resistor	100kΩ	1/4W
R621	RD1/4VS152J	Resistor	1.5kΩ	1/4W
R622	RD1/8PS562J	Resistor	5.6kΩ	1/8W
R623	RD1/8PS124J	Resistor	120kΩ	1/8W
R624	RD1/4PS561J	Resistor	560Ω	1/4W
R626	RD1/4PS273J	Resistor	27kΩ	1/4W

BOOSTER P.C.BOARD UNIT (CXB-893)

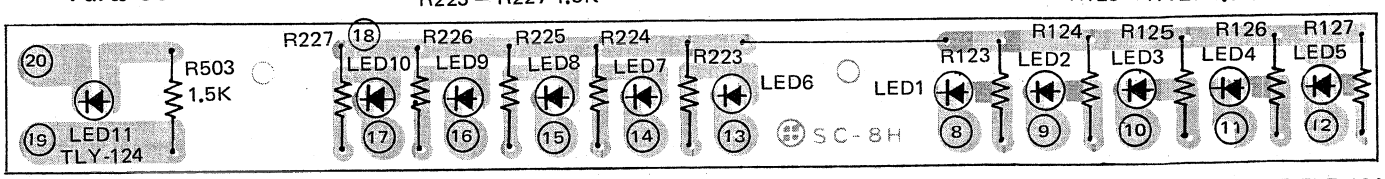
CAPACITORS

Ref. Key	Parts No.	Description		
C101	CEA100P25	Capacitor	10μF	25V
C102	CKDYB331M50	Capacitor	330pF	50V
C103	CEA471P16	Capacitor	470μF	16V
C104	CCDSL470J50	Capacitor	47pF	50V
C105	CEA470P16	Capacitor	47μF	16V
C106	CCDSL101K50	Capacitor	100pF	50V
C107	CEA470P10	Capacitor	47μF	10V
C108	CQMA333K50	Capacitor	0.033μF	50V
C109	CEA222P25	Capacitor	2200μF	25V
C110	CEA220P10	Capacitor	22μF	10V
C111	CEAR47M50	Capacitor	0.47μF	50V
C112	CKDYF104Z12	Capacitor	0.1μF	12V
C113	CEA221P35	Capacitor	220μF	35V
C201	CEA100P25	Capacitor	10μF	25V
C202	CKDYB331M50	Capacitor	330pF	50V
C203	CEA471P16	Capacitor	470μF	16V
C204	CCDSL470J50	Capacitor	47pF	50V
C205	CEA470P16	Capacitor	47μF	16V
C206	CCDSL101K50	Capacitor	100pF	50V

Ref. Key	Parts No.	Description		
C207	CEA470P16	Capacitor	47μF	16V
C208	CQMA333K50	Capacitor	0.033μF	50V
C209	CEA222P25	Capacitor	2200μF	25V
C210	CEA220P10	Capacitor	22μF	10V
C211	CEAR47M50	Capacitor	0.47μF	50V
C212	CKDYF104Z25	Capacitor	0.1μF	25V
C501	CEA102P16	Capacitor	1000μF	16V
C502	CEA101M10BP	Capacitor	100μF	10V
C503	CQMA104K50	Capacitor	0.1μF	50V
C504	CEA471P35	Capacitor	470μF	35V
C505	CEA222P50	Capacitor	2200μF	50V
C506	CEA471P10	Capacitor	470μF	10V
C507	CEA470P10	Capacitor	47μF	10V
C508	CKDYF103Z50	Capacitor	0.01μF	50V
C601	CEAR33M50	Capacitor	0.33μF	50V
C602	CEA4R7P25	Capacitor	4.7μF	25V
C603	CEA220P10	Capacitor	22μF	10V
C604	CEA010P50	Capacitor	1μF	50V
C605	CEA4R7P25	Capacitor	4.7μF	25V
C606	CQMA222K50	Capacitor	0.0022μF	50V

8. LED P.C.BOARD UNIT

- **Parts Connection**



LED10 TLR-124 LED6 – LED9 TLY-124 LED1 – LED4 TLY-124 LED5 TLR-124

Figure 11

- **Parts List**

Ref. Key	Parts No.	Description
LED1	TLY-124	L.E.D.
LED2	TLY-124	L.E.D.
LED3	TLY-124	L.E.D.
LED4	TLY-124	L.E.D.
LED5	TLR-124	L.E.D.
LED6	TLY-124	L.E.D.
LED7	TLY-124	L.E.D.
LED8	TLY-124	L.E.D.
LED9	TLY-124	L.E.D.
LED10	TLR-124	L.E.D.
LED11	TLR-124	L.E.D.

Ref. Key	Parts No.	Description		
R123	RD1/4PS152J	Resistor	1.5kΩ	1/4W
R124	RD1/4PS152J	Resistor	1.5kΩ	1/4W
R125	RD1/4PS152J	Resistor	1.5kΩ	1/4W
R126	RD1/4PS152J	Resistor	1.5kΩ	1/4W
R127	RD1/4PS152J	Resistor	1.5kΩ	1/4W
R223	RD1/4PS152J	Resistor	1.5kΩ	1/4W
R224	RD1/4PS152J	Resistor	1.5kΩ	1/4W
R225	RD1/4PS152J	Resistor	1.5kΩ	1/4W
R226	RD1/4PS152J	Resistor	1.5kΩ	1/4W
R227	RD1/4PS152J	Resistor	1.5kΩ	1/4W
R503	RD1/4VS152J	Resistor	1.5kΩ	1/4W

9. FADER CONTROL P.C. BOARD

- Parts Connection

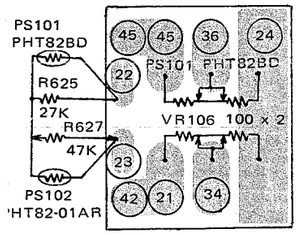


Figure 12

- Parts List

Ref. Key	Parts No.	Description	Notes
VR106	CCW-006	Variable Resistor 100Ωx2	
PS101	PHT82BD	Posistor	
R625	RD1/4PS273J	Resistor 27kΩ	
PS102	PHT82-01AR	Posistor	interchangeable with PHT82-02AR + R627 (47kΩ RD1/4PS473J 1/4W)

10. PUSH SWITCH P.C. BOARD UNIT

- Parts Connection

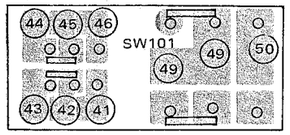


Figure 13

- Parts List

Ref. Key	Parts No.	Description	Notes
SW101	CSG-124	Push Switch	

11. SLIDE SWITCH P.C. BOARD UNIT

- Parts Connection

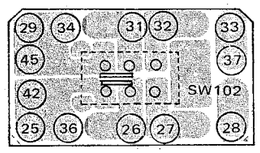


Figure 14

- Parts List

Ref. Key	Parts No.	Description	Notes
SW102	CSH-064	Slide Switch	

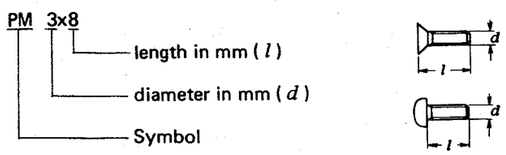
12. NOMENCLATURE OF SCREWS, WASHERS AND NUTS

The following symbols stand for screws, washers and nuts as shown in exploded view.

Symbol	Description	Shape
RT	Brazier head tapping screw	
PT	Pan head tapping screw	
BT	Binding head tapping screw	
CT	Countersunk head tapping screw	
TT	Truss head tapping screw	
OCT	Oval countersunk head tapping screw	
PM	Pan head machine screw	
CM	Countersunk head machine screw	
OCM	Oval countersunk head machine screw	
TM	Truss head machine screw	
BM	Binding head machine screw	
PSA	Pan head screw with spring lock washer	
PSB	Pan head screw with spring lock washer and flat washer	
PSF	Pan head screw with flat washer	

Symbol	Description	Shape
EW	E type washer	
FW	Flat washer	
SW	Spring lock washer	
N	Nut	
WN	Washer faced nut	
ITW	Internal toothed lock washer	
OTW	Outernal toothed lock washer	
SC	Slotted set screw (Cone point)	
SF	Slotted set screw (Flat point)	
HS	Hexagon socket headless set screw	
OCW	Oval countersunk head wood screw	
CW	Countersunk head wood screw	
RW	Round head wood screw	

EXAMPLE



NOTICE: Parts whose numbers are omitted are subject to being not supplied.

A B C D E F

1 2 3 4

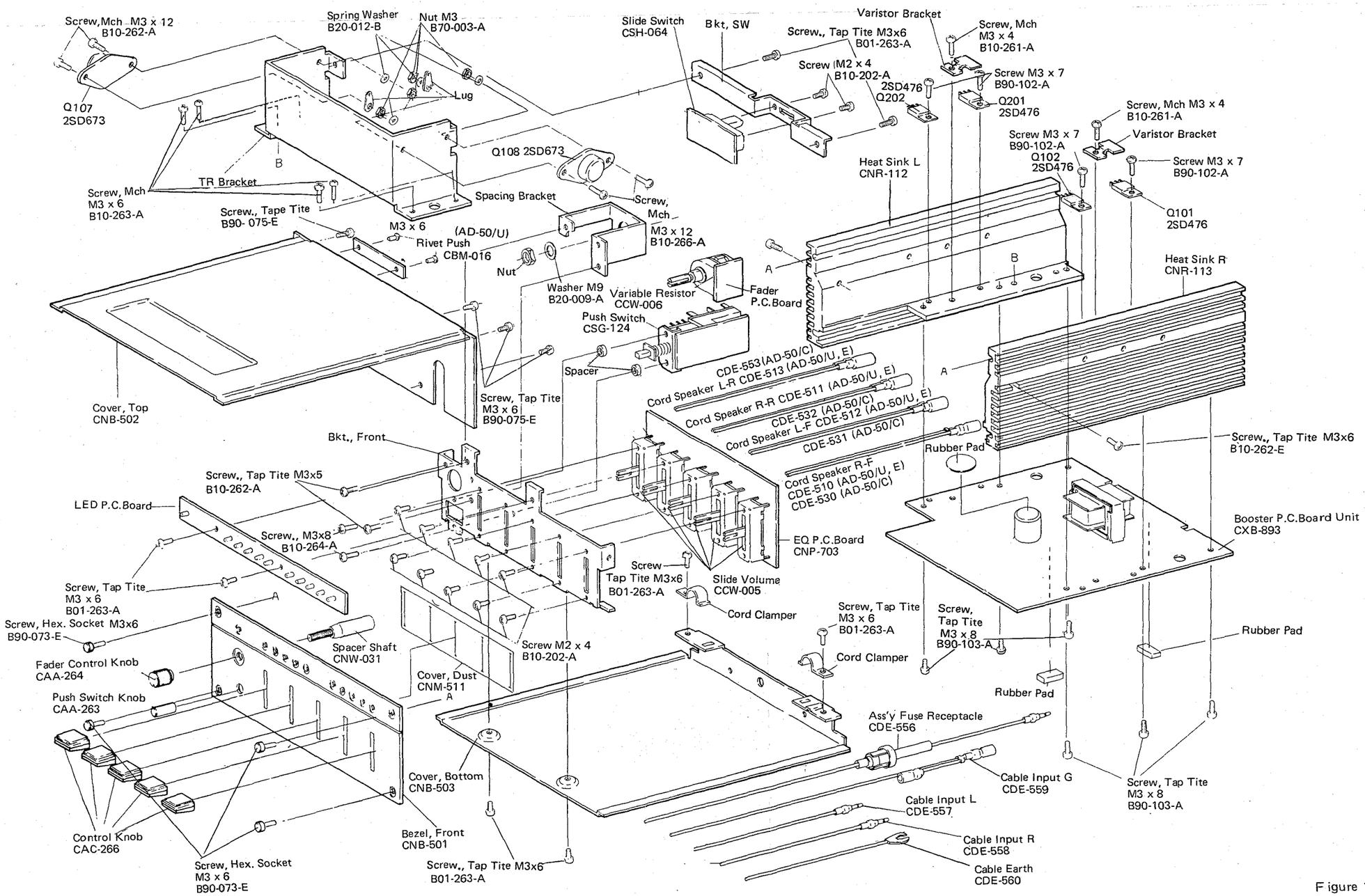


Figure 15

NOTICE: Parts whose numbers are omitted are subject to being not supplied.

14. PACKING METHOD AD-50

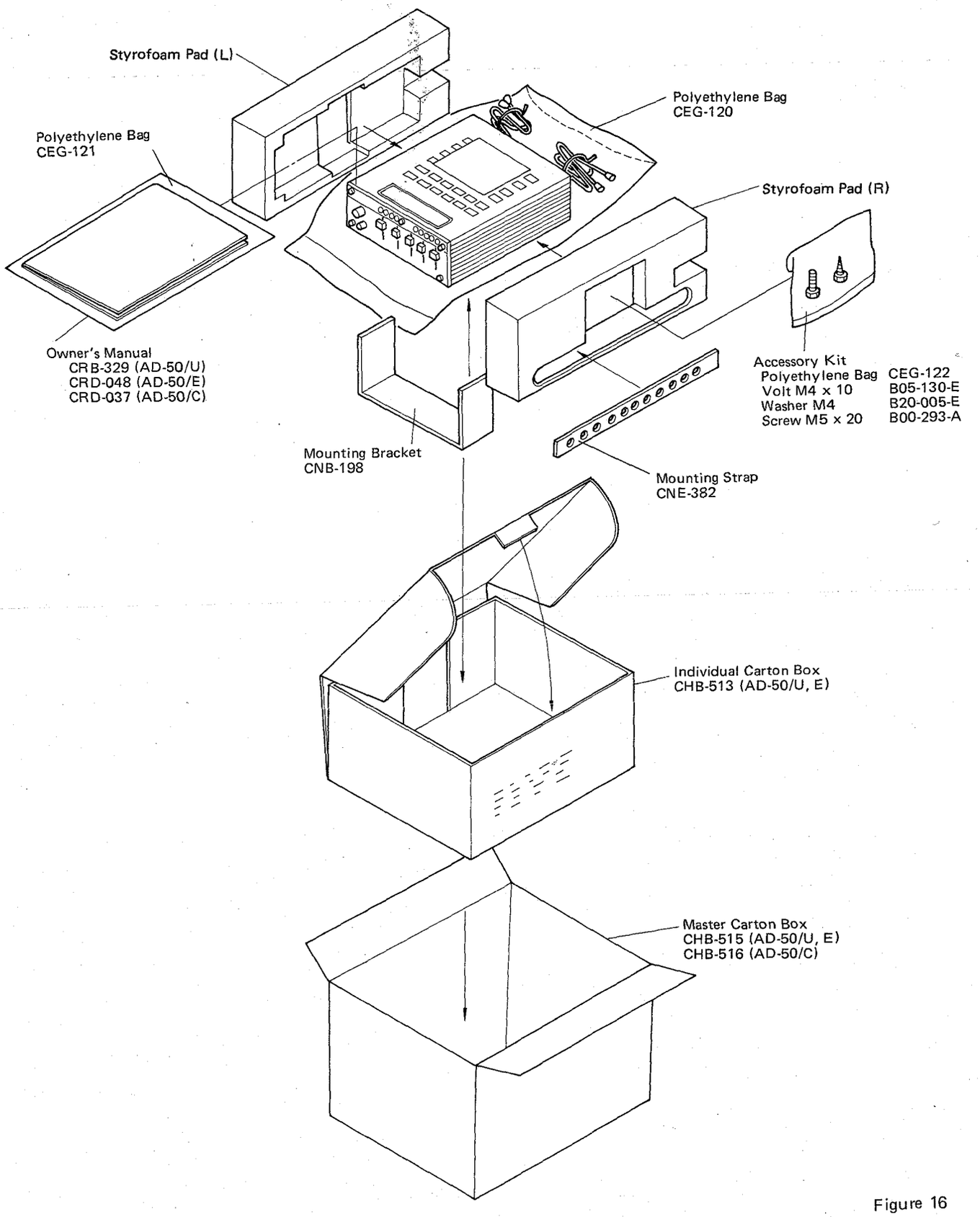


Figure 16